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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/846,125	04/30/2001	Andreas N. Dorsel	10981420-1	5240

7590

10/03/2002

AGILENT TECHNOLOGIES, INC.
Legal Department, 51U-PD
Intellectual Property Administration
P.O. Box 58043
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EXAMINER

TUNG, JOYCE

ART UNIT

PAPER NUMBER

1637

DATE MAILED: 10/03/2002

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/846,125

Applicant(s)

DORSEL ET AL.

Examiner

Joyce Tung

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) 21-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: *Detailed Action*.

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DETAILED ACTION

The Group and/or Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 1637.

Election/Restriction

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-20, drawn to a method of reading fluorescence signals from an array of chemical moieties comprising illuminating multiple locations on the array and detecting any resulting fluorescence, classified in class 435, subclass 6.
 - II. Claims 21-34, drawn to an apparatus for reading fluorescence signals from an array of chemical moieties, classified in class 435, subclass 287.7.
 - III. Claims 35-39, drawn to a computer program product comprising a computer readable storage medium having a computer program stored, classified in class 364, subclass 550.
2. The inventions are distinct, each from the other because of the following reasons:

Inventions II-III, and I are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as

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claimed can be used in a materially different process of using that product (MPEP § 806.05(h)).

In the instant case, the products, Inventions II and III can be used for any biological or chemical assays, while the process, invention I can be performed manually.

3. Inventions II and III are distinct, because Invention II is drawn to an apparatus for reading fluorescence signals from an array of chemical moieties, while Invention III is drawn to a computer program product comprising a computer readable storage medium and both inventions have different usage and mode of operation. Thus, they are different inventions.

4. Because these inventions are distinct for the reasons given above and the search required for each Group is different, restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Mr. Gordon Stewart on 8/23/2002 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-20.

Affirmation of this election must be made by applicant in replying to this Office action. Claims 21-39 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

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Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Claims 1-5 and 8-20 are vague and indefinite because after illuminating multiple locations on the array, it is unclear what was occurred. The language “wherein a later illuminated location is spatially closer to an earlier illuminated location than is a temporally intervening illuminated location lying on a same line as the later and earlier” does not clearly present the instant invention”. For example, what is meant by “later illuminated location”, “spatially closer”, “a temporally intervening illuminated location” and “on a same line”.

Clarification is required.

b. Claim 17 is vague and indefinite because it is unclear how the language “a saturation characteristic of fluorophore producing the fluorescence” is defined in the specification.

c. Claims 6-7 are vague and indefinite because it is unclear what is the definition of the language “path” in terms of illumination. In addition, what is meant by the language “the paths extend in a same lengthwise direction and are spaced from one another in a crosswise direction”

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and "the spatial sequence of the paths does not correspond to their temporal sequence".

Clarification is required.

d. Claim 20 is vague and indefinite because of the language "a pixel size" which has no antecedent basis. Clarification is required.

e. Claims 11-12 are vague and indefinite because of the language "a timewise sequence" and "spatial sequence". It is not really clear what is the difference between these terms.

Clarification is required.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-17 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Dorsel et al. (5,837,475).

Dorsel et al. disclose an apparatus and technique for analyzing chemicals in a chemical array that is scanned, i.e. read by irradiating and detecting any resulting light interaction such as fluorescence, in lines of pixels (See column 1, lines 46-49). The method of Dorsel et al. involves using an array which is an arrangement of objects in space and the space is a separate predetermined spatial position (See column 2, lines 40-42). Dorsel et al. also disclose that the

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light source is controlled by a controller and sequentially irradiates pixels in a set in the array (See column 1, lines 56-63). This teaching is inherent that there will be a later illuminated location and a earlier illuminated location because of the spatial position. Since the claim language “spatially closer” is unclear how close the spaces are compared with the temporally intervening illuminated location lying on a same line as the later and earlier illuminated locations, the teaching anticipates the limitations of claims 1.

Dorsel et al. further disclose that pixel are spots of an array and the spots are illuminated (See column 2, lines 47-48), and first set of pixels has more than one pixel (See column 1, lines 59-64). These teachings are inherent that the array has multiple paths because the language “path” is unclear in which the language can be interpreted as any thing. In addition, Dorsel et al. disclose using a scanner, such that different pixels can be illuminated at different time (See column 3, lines 1-5). This indicates that there must be a temporally intervening illuminated path. The array includes array elements, resulting in pixels that are arranged in rows and columns, each of which may be considered a line (See column 3, lines 61-66). The rows and columns are equivalent to the term “location”, “path” and “line” used in the claim language.

Dorsel et al. do not disclose that the chemical moieties are polynucleotide as indicated in claims 3-4. However, the polynucleotide is considered to be chemical moiety.

Based upon the above analysis, the teachings of Dorsel et al. anticipate the limitations of claims 1-17 and 20.

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11. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Joyce Tung whose telephone number is (703) 305-7112. The examiner can normally be reached on Monday-Friday from 8:00 AM-4:30 PM.

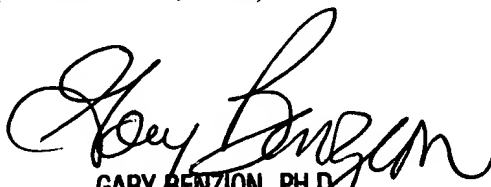
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached at (703) 308-1119 on Monday-Friday from 10:00 AM-6:00 PM.

Any inquiries of a general nature or relating to the status of this application should be directed to the Chemical/Matrix receptionist whose telephone number is (703) 308-0196.

12. Papers related to this application may be submitted to Group 1600 by facsimile transmission. Papers should be faxed to Art Unit 1637 via the PTO Fax Center located in Crystal Mall 1 using (703) 305-3014 or 308-4242. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989).

Joyce Tung

September 23, 2002


GARY BENZION, PH.D.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600

Attachment for PTO-948 (Rev. 03/01, or earlier)
6/18/01

The below text replaces the pre-printed text under the heading, "Information on How to Effect Drawing Changes," on the back of the PTO-948 (Rev. 03/01, or earlier) form.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

1. Correction of Informalities -- 37 CFR 1.85

New corrected drawings must be filed with the changes incorporated therein. Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin. If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings **MUST** be filed within the **THREE MONTH** shortened statutory period set for reply in the Notice of Allowability. Extensions of time may **NOT** be obtained under the provisions of 37 CFR 1.136(a) or (b) for filing the corrected drawings after the mailing of a Notice of Allowability. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

2. Corrections other than Informalities Noted by Draftsperson on form PTO-948.

All changes to the drawings, other than informalities noted by the Draftsperson, **MUST** be made in the same manner as above except that, normally, a highlighted (preferably red ink) sketch of the changes to be incorporated into the new drawings **MUST** be approved by the examiner before the application will be allowed. No changes will be permitted to be made, other than correction of informalities, unless the examiner has approved the proposed changes.

Timing of Corrections

Applicant is required to submit the drawing corrections within the time period set in the attached Office communication. See 37 CFR 1.85(a).

Failure to take corrective action within the set period will result in **ABANDONMENT** of the application.